

## Construction and characterization of the *Bacillus* strain with the inactivated phytase gene

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### Abstract

The *Bacillus subtilis* dphy strain with the inactivated phytase gene was obtained. The phytase genes in bacilli displayed high homology; the respective enzymes belonged to the class of  $\beta$ -propeller phosphatases. Physiological and morphological features of the recombinant strain were determined and its sporulation was studied. The level of biomass accumulation was characterized under different conditions of bacterial growth: at different values of pH, temperature, and medium salinity. It is concluded that phytases may participate in stress response formation. © 2013 Pleiades Publishing, Ltd.

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### Keywords

bacilli, gene inactivation, phytases, phytate